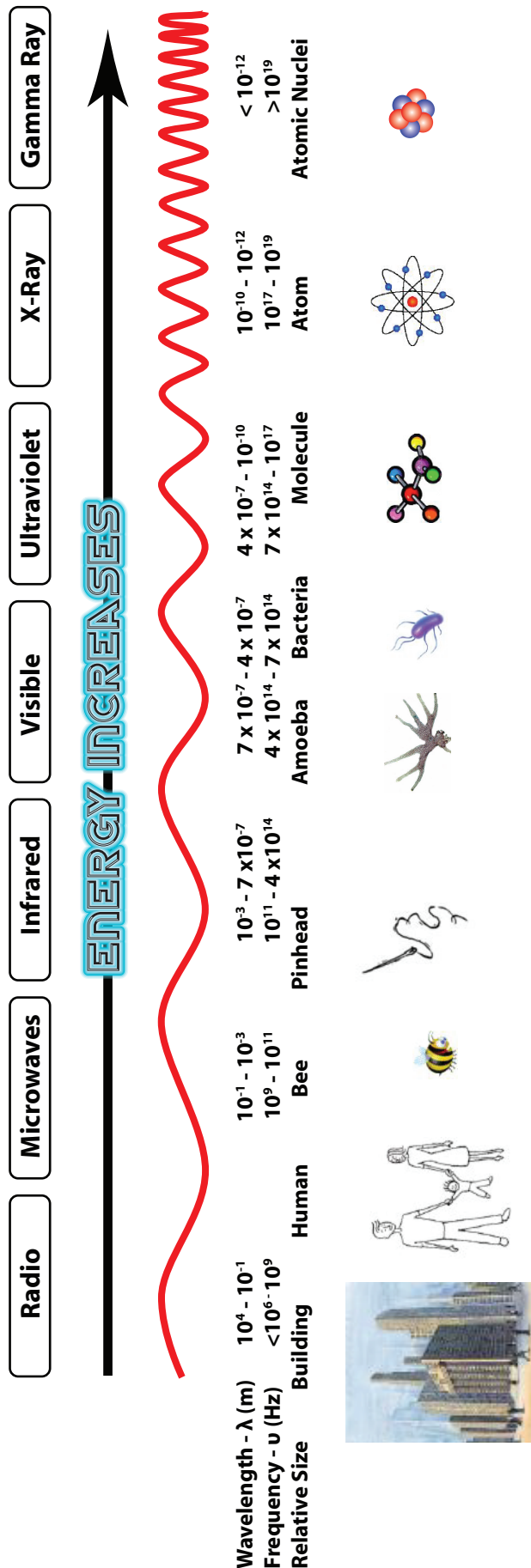
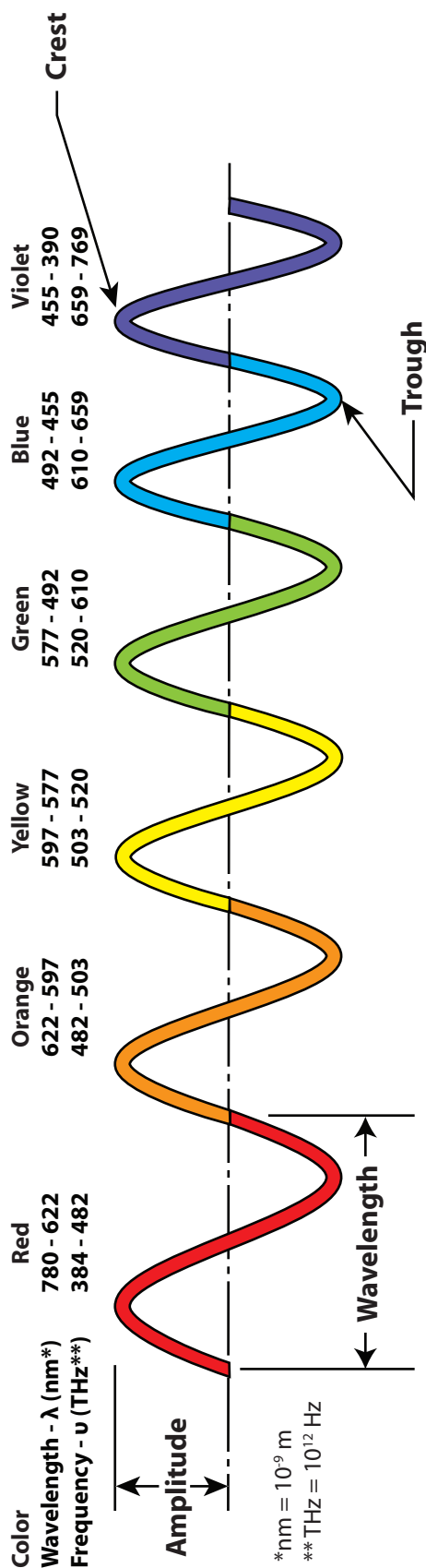


Electromagnetic Waves



Visible Light



Frequency [ν] (Hz or s^{-1})

The amount of waves that pass a point in 1 second

EM Equations

$$c = \lambda \nu$$

$$E = h \nu$$

c = Speed of Light (3.00×10^8 m/s)

λ = wavelength (m)

ν = frequency (Hz or s^{-1})

E = Energy (J)

h = Planck's Constant (6.63×10^{-34} J-s)

LIGHT NOTES

WHITE

is the combination of all colors
objects reflect all light
objects absorb no light

BLACK

is the absence of all colors
objects reflect no light
objects absorb all light

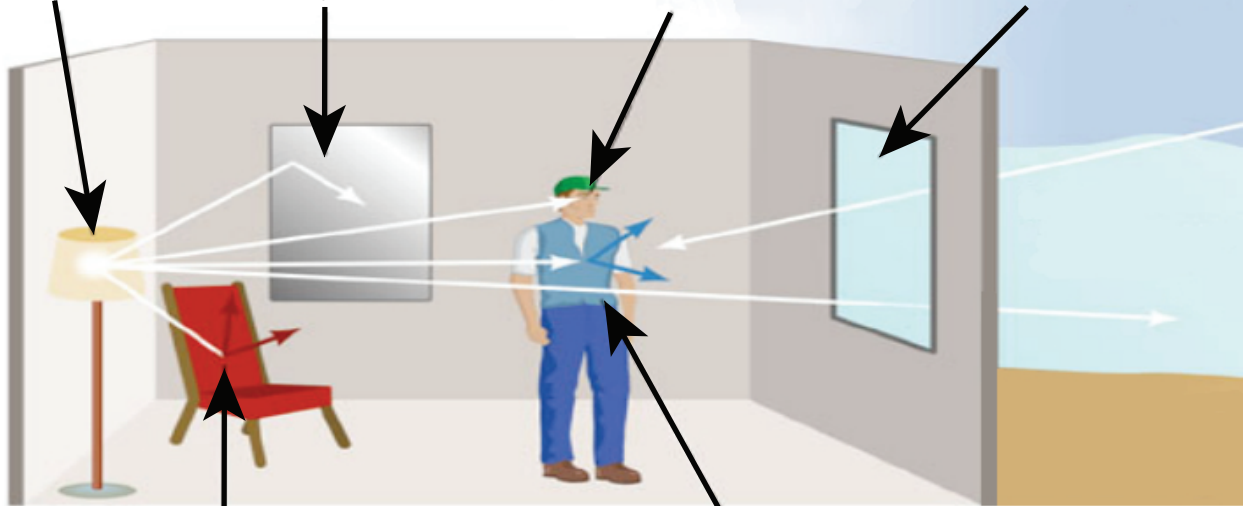
inside...

Light Bulb emits
White Light

Mirror reflects
light

Rods and cones in our eyes
recognize light and color

Glass transmits
light



Opaque Red Chair
Absorbs all colors except Red
Reflects (Scatters) Red

Opaque Blue Shirt
Absorbs all colors except Blue
Reflects (Scatters) Blue

outside...

Yellow Sun
Rayleigh scattering
Reds, Oranges and Yellows
pass directly through
the atmosphere

Sun emits
white light

Blue Sky
Rayleigh scattering
Greens, Blues and Violets
are scattered by atmosphere

Snow
Absorbs some light (aids in melting)
Reflects (Scatters) most light

Ground
Absorbs most light (heats up)
Reflects (Scatters) some light

Trees
Absorbs all colors except Green
Reflects (Scatters) Green

